

Title (en)  
METHODS OF MECHANICAL AND ELECTRICAL SUBSTRATE CONNECTION

Title (de)  
VERFAHREN ZUR MECHANISCHEN UND ELEKTRISCHEN VERBINDUNG EINES SUBSTRATES

Title (fr)  
PROCEDES DE CONNEXION ELECTRIQUE ET MECANIQUE DE SUBSTRATS

Publication  
**EP 0808508 B1 20011219 (EN)**

Application  
**EP 96906318 A 19960208**

Priority  
• US 9601657 W 19960208  
• US 38664695 A 19950210

Abstract (en)  
[origin: US5537738A] The disclosure describes a method of attaching and electrically connecting first and second planar substrates, wherein the first and second substrates have inwardly-facing surfaces with matching patterns of bond pads. The method includes adjusting a wire bonder's tear length to a setting which leaves a projecting tail of severed bond wire at a terminating wedge bond connection. Further steps include making a wedge bond to an individual bond pad of the first planar substrate with bond wire from the wire bonder, and then severing the bond wire adjacent said wedge bond. The adjusted tear length of the wire bonder results in a tail of severed bond wire which projects from said wedge bond and said individual bond pad. Subsequent steps include positioning the first and second planar substrates with their inwardly facing surfaces facing each other, aligning the matching bond pad patterns of the first and second planar substrates, and pressing the first and second planar substrates against each other. The bond wire tail deforms between the bond pads of the first and second planar substrates to conductively bond therebetween.

IPC 1-7  
**H01J 9/26**

IPC 8 full level  
**H01J 9/34** (2006.01); **H01J 9/24** (2006.01); **H01J 9/26** (2006.01); **H01J 9/32** (2006.01); **H01J 9/36** (2006.01); **H01L 21/60** (2006.01); **H01L 21/98** (2006.01); **H01L 23/538** (2006.01); **H05K 3/36** (2006.01); **H05K 3/32** (2006.01)

CPC (source: EP KR US)  
**H01J 9/241** (2013.01 - EP US); **H01J 9/26** (2013.01 - KR); **H01J 9/261** (2013.01 - EP US); **H01J 9/32** (2013.01 - EP US); **H01J 9/36** (2013.01 - EP US); **H01L 23/5385** (2013.01 - EP US); **H01L 25/50** (2013.01 - EP US); **H01J 2329/8625** (2013.01 - EP US); **H01L 24/45** (2013.01 - EP US); **H01L 24/48** (2013.01 - EP US); **H01L 2224/45015** (2013.01 - EP US); **H01L 2224/45124** (2013.01 - EP US); **H01L 2224/48091** (2013.01 - EP US); **H01L 2224/48465** (2013.01 - EP US); **H01L 2924/00014** (2013.01 - EP US); **H05K 3/328** (2013.01 - EP US); **H05K 3/368** (2013.01 - EP US); **Y10T 29/49126** (2015.01 - EP US)

C-Set (source: EP US)  
1. **H01L 2224/48091 + H01L 2924/00014**  
2. **H01L 2224/48465 + H01L 2224/48091 + H01L 2924/00**  
3. **H01L 2224/45124 + H01L 2924/00014**  
4. **H01L 2224/45015 + H01L 2924/20753**  
5. **H01L 2224/45015 + H01L 2924/00**  
6. **H01L 2224/45124 + H01L 2924/00015**  
7. **H01L 2224/45015 + H01L 2924/00014 + H01L 2924/20753**  
8. **H01L 2924/00014 + H01L 2224/05599**

Designated contracting state (EPC)  
AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**US 5653017 A 19970805**; AT E211301 T1 20020115; DE 69618177 D1 20020131; DE 69618177 T2 20020814; EP 0808508 A1 19971126; EP 0808508 B1 20011219; JP 3619254 B2 20050209; JP H11503563 A 19990326; KR 100384990 B1 20030814; KR 19980702122 A 19980715; US 5537738 A 19960723; WO 9624944 A1 19960815

DOCDB simple family (application)  
**US 64258196 A 19960503**; AT 96906318 T 19960208; DE 69618177 T 19960208; EP 96906318 A 19960208; JP 52440596 A 19960208; KR 19970705517 A 19970811; US 38664695 A 19950210; US 9601657 W 19960208